

PORT AUTHORITY OF NY & NJ  
WORLD TRADE CENTER

CERBERUS/PYROTRONICS  
DIRECT SALES DIVISION  
SPECIAL PROJECTS

PROJECT COMMUNICATIONS

TO: JOSEPH MIZRAHI  
PROJECT ENGINEER  
PORT AUTHORITY OF NY & NJ

FROM: JOHN DRUCKER  
PROJECT MANAGER  
CERBERUS/PYROTRONICS

RE: METHOD OF PROCEDURE (MOP)  
MXLV VOICE EVACUATION SWITCHOVER

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1.0 SCOPE:

TRANSFER AUDIO EVACUATION FUNCTIONS FROM THE EXISTING  
EXECUTONE SYSTEM IN TOWERS 1 & 2 TO THE NEW MXLV SYSTEM.  
THE WORK SHALL ENCOMPASS AUDIO PAGING SPEAKERS IN THE  
FOLLOWING AREAS:

- 1.1 COMMON CORRIDORS - BUILDING CORE  
TYPICALLY (3) SPEAKERS PER FLOOR.
- 1.2 EXIT STAIRWELLS - BUILDING CORE  
TYPICALLY (1) SPEAKER IN EACH OF (3) STAIRWAYS  
EVERY (5) FLOORS.
- 1.3 DUCT SPEAKER AMPLIFIERS - TENANT SPACES  
TYPICALLY (1) AMPLIFIER PER FLOOR DRIVING (4) HVAC  
DUCT MOUNTED 25 VRMS SPEAKERS.

2.0 WORK:

THE FOLLOWING INSTALLATION, RECONFIGURATION AND TESTING WORK  
SHALL BE PERFORMED:

2.1 COMMON CORRIDORS -

- A) INSTALL NEW 16/2 UNSHIELDED, 600V TEFLON TWISTED PAIR  
CABLES. NYC/MEA APPROVED. REFERENCE: WTC-EVAC/DWG. E-1.
- B) REMOVE EXISTING (3) SPEAKERS. INSTALL (3) NEW  
CERBERUS/PYROTRONICS 70VRMS CEILING MOUNTED SPEAKERS  
INTO EXISTING CEILING ENCLOSURES. SET SPEAKER TAPS.

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WORLD TRADE CENTER  
MXLV FIRE PROTECTION SYSTEM

- C) TERMINATE WIRING AT TSC CABINET SERVING THAT FLOOR.
- D) TERMINATE AND ACTIVATE SPEAKER CIRCUIT IN MXLV FIRE PROTECTION SYSTEM.
- E) PERFORM ACCEPTANCE TEST.

2.2 EXIT STAIRWELLS -

- A) INSTALL NEW 16/2 UNSHIELDED, 600V TEFLON TWISTED PAIR CABLES. NYC/MEA APPROVED. REFERENCE: WTC-EVAC/DWG. E-1.
- B) REMOVE EXISTING (3) SPEAKERS ((1) IN EACH STAIRWELL). INSTALL (3) NEW CERBERUS/PYROTRONICS 70VRMS WALL MOUNTED SPEAKERS AT EXISTING LOCATIONS. SET SPEAKER TAPS.
- C) TERMINATE WIRING AT TSC CABINET SERVING THAT FLOOR.
- D) TERMINATE AND ACTIVATE SPEAKER CIRCUIT IN MXLV FIRE PROTECTION SYSTEM.
- E) PERFORM ACCEPTANCE TEST.

2.3 DUCT SPEAKER AMPLIFIERS -

- A) INSTALL NEW 16/2 UNSHIELDED, 600V TEFLON TWISTED PAIR CABLE. NYC/MEA APPROVED. REFERENCE: WTC-EVAC/DWG. E-1.
- B) EXTEND SPEAKER CIRCUIT FROM CORRIDOR SPEAKER DESIGNATED ON REFERENCED DRAWINGS TO AMPLIFIER LOCATED IN "E-C CLOSET".
- C) REMOVE AMPLIFIER RISER FEED FROM EXISTING SYSTEM. CONNECT NEW SPEAKER CIRCUIT TO EXISTING AMPLIFIER INPUT.
- D) PERFORM ACCEPTANCE TEST.

3.0 COORDINATION:

- 3.1 ALL WORK ON EXISTING SYSTEMS SHALL BE COORDINATED WITH WTC ELECTRICAL OPERATIONS DEPT.
- 3.2 ALL WORK ON MXLV FIRE PROTECTION SYSTEM SHALL BE COORDINATED WITH CERBERUS/PYROTRONICS.
- 3.3 A FIRE WATCH SHALL BE INITIATED WHEN ANY PORTION OF THE EXISTING SYSTEMS ARE OUT OF SERVICE DURING CONSTRUCTION.

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WORLD TRADE CENTER  
MXLV FIRE PROTECTION SYSTEM.

3.4 CONSTRUCTION SHALL NOT BEGIN UNTIL MXLV PHASE I WORK HAS BEEN COMPLETED.

3.5 UPON COMPLETION ALL 1WTC & 2WTC EVACUATION COMMAND SHALL BE FROM THE MXLV SYSTEM. ALL OTHER AREAS/BUILDINGS SHALL REMAIN ON THE EXISTING SYSTEM LOCATED AT THE 7-7 DESK.

#### 4.0 SCHEDULE:

##### 4.1 TYPICAL FLOOR SCHEDULE:

- 1) WTC ELECTRICAL OPS DISCONNECTS EXISTING SYSTEM. 2ND SHIFT  
4 - 12 PM
- 2) ELECTRICAL CONSTRUCTION WORK. 2ND & 3RD SHIFT  
4 PM - 8 AM
- 3) PYROTRONICS CHECK/OUT & MXLV CONNECTION. 1ST SHIFT (EARLY)  
6:00 AM
- 4) WTC ELECTRICAL OPS TERMINATES NEW CIRCUITS. 1ST SHIFT (EARLY)  
6:00 AM
- 5) ACCEPTANCE TEST 1ST SHIFT  
9:00 AM
- 6) COMPLETION 1ST SHIFT  
10:00 AM

JOHN DRUCKER  
JUNE 31 1993

WP51/WTCEVACP

2-74

Charge No.	Program Project	Area	Job
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THE PORT AUTHORITY  
OF NEW YORK AND NEW JERSEY  
One World Trade Center, New York, N.Y. 10048

J.T. \_\_\_\_\_  
 Sheet No. 1 OF 1  
 Made By: J. MIZRAHI  
 Checked By: \_\_\_\_\_

## ENGINEERING DEPARTMENT ESTIMATE

Date: 7/1/93

Name of structure: **WTC TOWERS A & B**

**PA SYSTEM FOR TYP. FLOOR (NO STAIRWAY SPEAKERS)**

## ELECTRICAL ESTIMATE WORK SHEET

Stage: IV

[illegible]

Quantities and Unit Prices indicated hereon are applicable only to this estimate and are not to be copied.

Charge No.	Program	Area	Job
	Project		

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One World Trade Center, New York, N.Y. 10048

## ENGINEERING DEPARTMENT ESTIMATE

J.T. \_\_\_\_\_  
 Sheet No. 1 OF 1  
 Made By: J. MIZRAHI  
 Checked By. \_\_\_\_\_

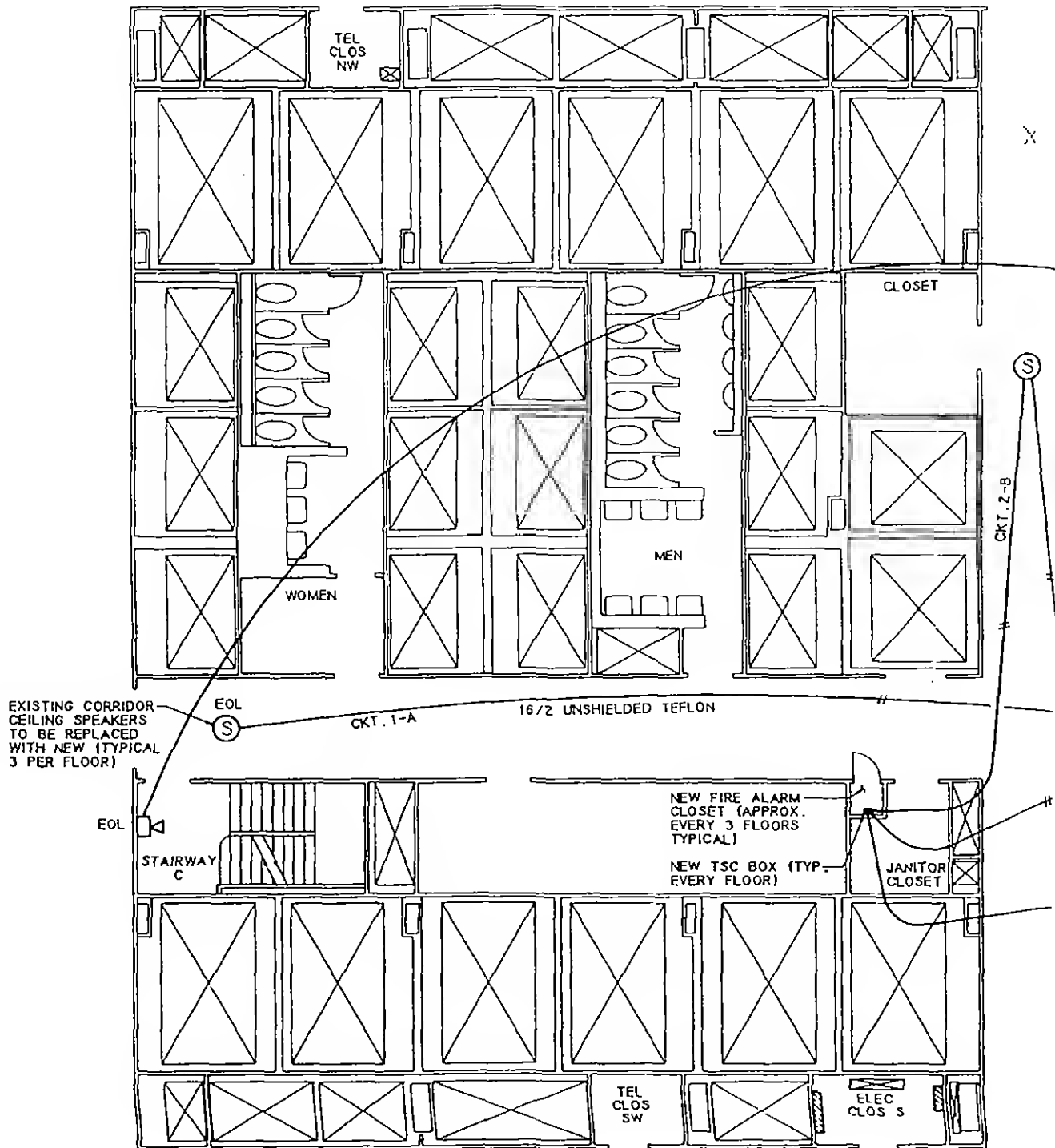
Date: 7/1/93

Name of structure: WTC TOWERS A & B  
PA SYSTEM FOR TYP. FLOOR WITH STAIRWAY SPEAKERS  
ELECTRICAL ESTIMATE WORK SHEET

Stage: IV

[illegible]

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OF



**THE PORT AUTHORITY  
OF NY & NJ**

ENGINEER OF DESIGN E.D.D., PORTS AND  
WORLD TRADE

CHIEF ELECTRICAL ENGINEER

PRELIMINARY

Engineering Department  
Design Divisions

The World Trade  
Center

Title

WORLD TRADE CENTER  
PROPOSED WIRING OF  
P.A. SYSTEM FOR  
TOWERS A & B

No. Date Revision Approved

This drawing subject to conditions in contract.  
All inventions, ideas, designs and methods  
herein are reserved to Port Authority and  
may not be used without its written consent.

MT/RAH QTA  
Designed by Drawn by Checked by

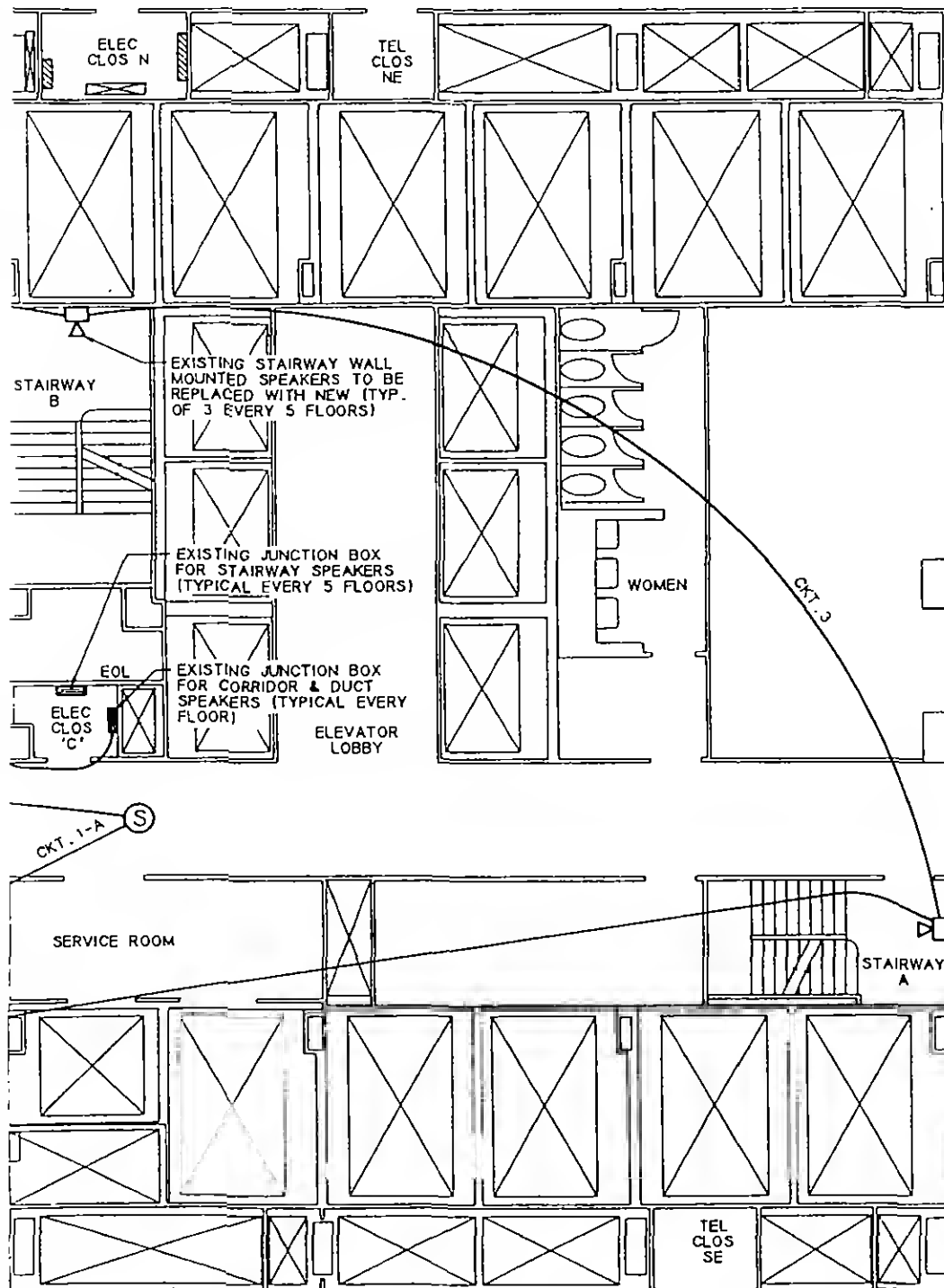
Date Scale AS NOTED

Contract Number Drawing Number

WTC-EVAC

E-1

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